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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,361	10/24/2006	Rejane Pratelli	3338.100WOUS	4338
24113 7590 06/10/2010 PATTERSON THUENTE CHRISTENSEN PEDERSEN, P.A. 4800 IDS CENTER 80 SOUTH 8TH STREET MINNEAPOLIS, MN 55402-2100				
EXAMINER				
KRUSE, DAVID H				
ART UNIT		PAPER NUMBER		
1638				
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06/10/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/588,361

Applicant(s)

PRATELLI ET AL.

Examiner

David H. Kruse

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6,7,9-12 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) 16-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6,7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. A new issue of patentability of the claims has come to the Examiner's attention; therefore, the finality of the action mailed 23 February 2010 is withdrawn.
2. The claims amendment filed on 24 May 2010 has been entered.
3. The rejection under 35 U.S.C. 112, first paragraph, for lack of written description is withdrawn in view of Applicants' amendments to the claims.
4. The rejection of record under 35 U.S.C. 103(a) is withdrawn in view of a new ground of rejection under 103(a).

Election/Restrictions

5. Claims 16-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 2 June 2008.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4, 6, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Rejane Pratelli (2000, Doctoral Thesis "Identification et caractérisation de canaux potassiques chez la vigne vers une amélioration de la balance acido-basique de la vendange") (the Thesis) an English translation of sections 2.6 and 4.1-4.3 (the

Translation) is attached hereto. Translation of the Abstract of the Pratelli Thesis published online at Refdoc.fr dated 2000 (the Abstract) is also attached hereto.

MPEP 2128.01 [R-3]; A doctoral thesis indexed and shelved in a library is sufficiently accessible to the public to constitute prior art as a "printed publication." *In re Hall*, 781 F.2d 897, 228 USPQ 453 (Fed. Cir. 1986). Even if access to the library is restricted, a reference will constitute a "printed publication" as long as a presumption is raised that the portion of the public concerned with the art would know of the invention. *In re Bayer*, 568 F.2d 1357, 196 USPQ 670 (CCPA 1978). In the instant case, the Examiner make the presumption based on the published Abstract that that portion of the public concerned with the art would have known of the invention, as the Abstract identifies the Title, Author and Affiliation of the subject matter.

Pratelli discloses transforming at least one cell of a grape with a gene encoding the outward potassium channel encoded by instant SEQ ID NO: 1, selecting at least one transformed cell and regenerating a transformed vine from the transformed cell at section 2.6.5, pages 10-20 of the Translation. Pratelli discloses overexpression using a CaMV 35S promoter at page 18 of the Translation. Pratelli discloses a transformed vine of *Vitis vinifera* at page 18 of the Translation. Pratelli discloses measuring the presence of a gene encoding an outward potassium channel encoded by instant SEQ ID NO: 1 of the vine in the tissue supplying the storage organs using PCR at page 19, 4th paragraph of the Translation. Hence, Pratelli had previously disclosed the claim limitations.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rejane Pratelli (2000, Doctoral Thesis "Identification et caractérisation de canaux potassiques chez la vigne vers une amélioration de la balance acido-basique de la vendange") (the Thesis) an English translation of sections 2.6 and 4.1-4.3 (the Translation) is attached hereto in view of Pratelli *et al* (2002, Plant Physiology 128: 564-577). Translation of the Abstract of the Pratelli Thesis published online at Refdoc.fr dated 2000 (the Abstract) is also attached hereto.

The teachings of the Pratelli Thesis (2000) are outlined above. Pratelli (2000) teaches analysis of transformants using PCR to verify the presence of the transgenic construct (page 19, 4th paragraph of the Translation).

Pratelli (2000) does not teach measuring expression of the gene encoding an outward potassium channel encoded by instant SEQ ID NO: 1 by measuring a quantity of mRNA derived from a transcription of the gene during the development of the storage organ.

Pratelli *et al* (2002) teach using semiquantitative RT-PCR for each development stage of berries for the stomatal inward rectifying potassium channel (SIRK) at page 574, left column, 2nd paragraph. Pratelli *et al* (2002) teach analyzing expression in stalks, roots, stems, leaves, berries 3 weeks before veraison (change of color of the grape berries), berries at veraison and berries 3 weeks after veraison at Fire 5 on page 572.

It would have been *prima face* obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the teachings of Pratelli (2000) to use the transgenic grape plants in a method of measuring the expression of the transgene in various tissues at varying developmental stages as taught by Pratelli (2002). One of ordinary skill in the art would have been motivated to practice such a method during storage organ development because Pratelli (2000) teaches that the VvSOR gene was isolated from grape berry cDNA library searches (page 21 of the Translation). Given the success of Pratelli (2002), one of ordinary skill in the art would have had a reasonable expectation of success.

Conclusion

11. This Office action is non-final in view of the new grounds of rejection.
12. No claims are allowed.
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (571) 272-0799. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The central FAX number for official correspondence is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-1600.

/David H Kruse/
Primary Examiner, Art Unit 1638
7 June 2010